CLAIMS

1. An apparatus for determining an optimum promotion plan

   for merchandising of products for sale, comprising:

   a scenario/results processor, configured to enable a

   user to prescribe an optimization scenario, and

   configured to present the optimum promotion plan

   to said user, wherein the optimum promotion plan

   is determined by execution of said optimization

   scenario;

   a demand engine, coupled to said scenario/results

   processor, configured to model relationships

   between potential prices of the products and

   market demand for the products, wherein said

   potential prices correspond to potential promotion

   events and potential supplier offers;

   an activity based cost engine, coupled to said demand

   engine, configured to estimate demand chain costs

   for the products based upon said market demand;

   and

a promotion optimization engine, coupled to said demand

engine and said activity based cost engine,

configured to employ said market demand and said

demand chain costs to determine the optimum

promotion plan, wherein the optimum promotion plan

maximizes a merchandising performance figure of

merit according to said optimization scenario, and

wherein the optimum promotion plan comprises a

subset of said promotion events and potential

supplier offers.

2. The apparatus as recited in claim 1, wherein said

scenario/results processor comprises:

an input/output processor, configured to acquire data

corresponding to said optimization scenario from

said user, and configured to distribute

optimization results to said user; and

a scenario controller, coupled to said input/output

processor, configured to control the acquisition

of said data and the distribution of said

optimization results in accordance with a

promotion plan optimization procedure.

3. The apparatus as recited in claim 2, wherein said data

is acquired from said user over the Internet via a

packet-switched protocol.

4.   The apparatus as recited in claim 3, wherein said
     packet-switched protocol comprises TCP/IP protocol.

5.   The apparatus as recited in claim 2, wherein said data
     is interactively provided by and said optimization
     results are interactively distributed to said user.

6.   The apparatus as recited in claim 5, wherein said data
     is acquired from a source electronic file and said
     optimization results are distributed to a destination
     electronic file, said electronic files being designated
     by said user.

7.   The apparatus as recited in claim 2, wherein said
     input/output processor comprises:

     a template controller, configured to provide first
          promotion plan optimization templates and second
          promotion plan optimization templates, wherein
          said promotion plan optimization templates are
          presented to said user to allow for prescription
          of said optimization scenario, and for
          distribution of said optimization results; and

a command interpreter; configured to extract commands

from said first promotion plan optimization

templates executed by said user, and configured to

populate said second promotion plan optimization

templates according to result data provided for

presentation to said user.

8. The apparatus as recited in claim 7, wherein said first

and second promotion plan optimization templates are

provided according to hypertext markup language (HTML).

9. The apparatus as recited in claim 7, wherein said first

and second promotion plan optimization templates are

provided according to extensible markup language (XML).

10. The apparatus as recited in claim 7, wherein said first

and second promotion plan optimization templates are

provided as Java applets.

11. The apparatus as recited in claim 7, wherein said first

promotion plan optimization templates comprise:

a plurality of new scenario templates, configured to

enable said user to prescribe scenario parameters

corresponding to said optimization scenario.

12. The apparatus as recited in claim 11, wherein said

plurality of new scenario templates comprises:

a promotion event configuration template, for

prescribing said potential promotion events.

13. The apparatus as recited in claim 12, wherein said

plurality of new scenario templates further comprises:

a supplier offer configuration template, for

prescribing said potential supplier offers.

14. The apparatus as recited in claim 12, wherein said

plurality of new scenario templates further comprises:

a promotion scenario configuration template, for

associating said potential promotion events to the

products, wherein said promotion scenario

configuration template allows said user to specify

a forward buy method, allowable potential supplier

offers, rules that constrain said optimization

scenario, and store merchandising capacities.

15. The apparatus as recited in claim 12, wherein said

plurality of new scenario templates further comprises:

an optimization template, for specifying a promotion

scenario and a time period for which the optimum

promotion plan is to be determined.

16. The apparatus as recited in claim 7, wherein said

second promotion plan optimization templates comprise:

an optimization results template, for providing said

user with said result data corresponding to said

optimization scenario.

17. The apparatus as recited in claim 16, wherein said

result data comprises selected ones of said potential

promotion events and selected ones of said potential

supplier offers.

18. The apparatus as recited in claim 17, wherein said

result data is presented graphically.

19. A method for optimizing a promotion plan for

merchandising products, comprising:

utilizing a computer-based scenario/results processor

within an optimization server to present a

sequence of data entry templates to a user,

whereby the user specifies an optimization

scenario;

within the optimization server, modeling the

relationship between potential prices of the

products and market demand for the products,

wherein the potential prices correspond to

potential promotion events and potential supplier

offers;

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within the optimization server, estimating demand chain

costs for the products according to the modeled

market demand;

within the optimization server, employing the market

demand and the demand chain costs to determine

optimum promotion events and optimum supplier

offers, wherein the optimum promotion events and

optimum supplier offers maximize a merchandising

performance figure of merit according to the

optimization scenario; and

generating a plurality of optimization results

templates and providing these templates to the

user, wherein the optimum promotion events and

optimum supplier offers are presented.

20. The method as recited in claim 19, wherein said

utilizing comprises:

acquiring data corresponding to the optimization

scenario from the user; and

formatting the data into a format suitable for

performing a promotion plan optimization according

to the optimization scenario.

21. The method as recited in claim 20, wherein said

acquiring comprises:

obtaining the data from the user over a data network

that employs a packet-switched protocol.

22. The method as recited in claim 21, wherein said acquiring further comprises:

employing TCP/IP protocol to obtain the data over the Internet.

23. The method as recited in claim 20, wherein the data is interactively provided by the user.

24. The method as recited in claim 20, wherein the data is acquired from a source electronic file that is designated by the user.

25. The method as recited in claim 19, wherein the data entry templates and the optimization results templates are generated in hypertext markup language (HTML).

26. The method as recited in claim 19, wherein the data entry templates and the optimization results templates are generated in extensible markup language (XML).

27. The method as recited in claim 19, wherein the data entry templates and the optimization results templates are generated as Java applets.

28. The method as recited in claim 19, wherein said utilizing comprises:

first providing a promotion event configuration

template, for prescribing the potential promotion

events; and

second providing a supplier offer configuration

template, for prescribing the potential supplier

offers.

29. The method as recited in claim 28, wherein said

utilizing further comprises:

third providing a promotion scenario configuration

template, for associating the potential promotion

events to the products, wherein said third

providing comprises:

specifying a forward buy method;

enabling/disabling certain ones of the potential

supplier offers;

adding rules and constraints to the optimization

scenario; and

indicating store merchandising capacities.

30. The method as recited in claim 19, wherein said

utilizing comprises:

providing an optimization template, for specifying a

promotion scenario and a time period for which the

optimum promotion plan is to be determined.

31. The method as recited in claim 19, wherein said generating comprises:

providing an optimization results template, for

supplying the user with scenario results

corresponding to the optimization scenario,

wherein the scenario results include selected ones

of the potential promotion events and selected

ones of the potential supplier offers.

32. A method for generating an optimum promotion plan, the optimized promotion plan corresponding to a set of products, a set of promotion events, and a set of supplier offers, the method comprising:

within a centralized data base, storing product

attribute and sales history data for a plurality

of stores, wherein the product attribute and sales

history data corresponds to the set of products;

first employing a web server to allow a plurality of

supplier computers to prescribe the supplier

offers;

second employing a web server to provide a user

computer with a plurality of scenario/result web

pages, the plurality of scenario/result web pages

enabling a user to prescribe the promotion events

and constraints for generating the optimum

promotion plan, wherein the user computer executes

a thin web client to access the scenario/result

web pages; and

determining the optimum promotion plan to maximize

either net profit, revenue, or volume, wherein

said determining uses both modeled market demand

and estimated demand chain costs corresponding to

the set of products.

33. The method as recited in claim 32, wherein said first

employing comprises:

providing the scenario/result web pages over the

Internet via a packet-switched protocol.

34. The method as recited in claim 33, wherein the

scenario/result web pages are provided in hypertext

markup language (HTML).

35. The method as recited in claim 33, wherein the

scenario/result web pages are provided as Java applets.